CURRENTLY PENDING CLAIMS

1. (Amended) A method for determining the presence of an analyte of interest in a test sample, said method comprising the steps of:

(I) applying the test sample to a test strip to form a sample mixture in a sample reservoir, said test strip comprising

(A) a chromatographic medium;

(B) the sample reservoir disposed on said chromatographic medium for receiving said test sample, said sample reservoir comprising

(i) a first detection reagent comprising

(a) a first detection ligand that selectively binds a first target moiety of said analyte of interest, wherein *(i)* said first detection ligand is conjugated with a semiconductor nanocrystal which, when exposed to a light of a selected excitation wavelength, emits light of a characteristic emission peak, and *(ii)* binding of said first detection ligand to said first target moiety forms a detection complex,

(C) a capture reagent immobilized on said chromatographic medium within a capture region which is distinct from said sample reservoir, wherein said capture reagent comprises a capture ligand that selectively binds said first detection complex to form an immobilized capture complex; and

(D) a control ligand immobilized on said chromatographic medium within a control region distinct from said sample reservoir and said capture region, wherein said control ligand selectively binds said first detection ligand to form an immobilized control complex;

wherein (i) said test strip has first and second ends, said sample reservoir is disposed at said first end, and said capture region is interposed between said sample reservoir and said control region, (ii) said sample mixture comprises said test sample and said first detection reagent, (iii) said sample mixture is transported through said chromatographic medium from said first to said second end, (iv) said first detection

ligand binds said first target moiety to form said detection complex, said detection complex is bound by said capture reagent, and said first detection ligand which is not bound to said first target moiety is bound to said control ligand; and

(II) exposing said test strip to said light of a selected excitation wavelength, wherein the emission of light of said characteristic emission peak in both the capture and control regions is indicative of the presence of the analyte in the test sample.

2. The method of claim 1, wherein the amount of analyte in the test sample may be quantified by measuring the quantity of light emitted by the capture region.

3. The method of claim 1, wherein said first detection reagent is present in said sample reservoir in a dehydrated form.

4. The method of claim 1, wherein said chromatographic medium comprises a nitrocellulose membrane.

5. The method of claim 1, wherein one or more of said detection reagents comprises said semiconductor nanocrystal conjugated directly to said detection ligand.

6. The method of claim 1, wherein one or more of said detection reagents comprises a microsphere conjugated directly to said detection ligand, wherein said microsphere is dyed with said semiconductor nanocrystals.

7. The method of claim 6, wherein said nanocrystals are disposed on the exterior surface of said microsphere.

8. The method of claim 6, wherein said nanocrystals are contained within the interior of said microsphere.

9. The method of claim 6, wherein said microsphere comprises a material selected from the group consisting of polystyrene, polymethylacrylate, polyacrylamide, polypropylene, latex, polytetrafluoroethylene, polyacrylonitrile, polycarbonate and glass.

10. The method of claim 1, wherein said first detection ligand is a protein.

11. The method of claim 10, wherein said protein is an antibody.

12. The method of claim 10, wherein said protein is an enzyme.

13. The method of claim 1, wherein said first detection ligand is a nucleic acid molecule.

14. The method of claim 1, wherein said capture ligand is a protein.

15. The method of claim 14, wherein said protein is an antibody.

16. The method of claim 14, wherein said protein is an enzyme.

17. The method of claim 1, wherein said capture ligand is selected from the group consisting of a nucleic acid molecule, biotin and an antibody.

18. The method of claim 1, wherein said control ligand is a protein.

19. The method of claim 18, wherein said protein is an antibody.

20. The method of claim 18, wherein said protein is an enzyme.

21. The method of claim 1, wherein said control ligand is a nucleic acid molecule or biotin.